CLAIMS

What is claimed is:

1. A method for enabling the introduction of a 200kHz GSM-type network into a TDMA system having a bandwidth that is substantially less than a 2.5MHz bandwidth normally employed for GSM-type networks, comprising the steps of:

providing a 52-multiframe containing 12 blocks of four consecutive frames, two idle frames, and two channels used for control channel purposes; and

rotating control channels belonging to a serving time group over every other timeslot number.

2. A method as in claim 1, wherein the rotation occurs over odd timeslot numbers as 7, 5, 3, 1, 7, 5,..., etc., and where the rotation occurs between frame numbers (FN) mod 52 = 3 and 4.

3. A method as in claim 1, wherein a mapping of the control channels on timeslot numbers is defined by the following formula:

For $0 \leq FN \bmod 52 \leq 3$, $TN = ((6x((FN \text{ div } 52) \bmod 4)) + 1 + (2xTG)) \bmod 8$; and

For $4 \leq FN \bmod 52 \leq 51$, $TN = ((6x((FN \text{ div } 52) \bmod 4)) + 7 + (2xTG)) \bmod 8$,

where TG is a time group value.

4. A method as in claim 1, wherein information specifying at least the rotation direction is signalled to the mobile station in a downlink synchronization channel.

5. A wireless TDMA digital communications system, comprising:

at least one mobile station; and

a plurality of base transceiver stations individual ones of which are capable of transmitting packet data to, and receiving packet data from, said mobile station using a 52-multiframe, wherein individual ones of said base transceiver stations rotate the transmission of control channels belonging to a serving time group over every other timeslot number for enabling said mobile station to perform reselection measurements on neighboring base transceiver stations without dropping traffic.

6. A system as in claim 5, wherein the rotation occurs between frame numbers (FN) mod 52 = 3 and 4.

7. A system as in claim 5, wherein a mapping of the control channels on timeslot numbers is defined by the following formula:

For $0 \leq FN \bmod 52 \leq 3$, $TN = ((6x((FN \text{ div} 52) \bmod 4)) + 1 + (2xTG)) \bmod 8$; and

For $4 \leq FN \bmod 52 \leq 51$, $TN = ((6x((FN \text{ div} 52) \bmod 4)) + 7 + (2xTG)) \bmod 8$,

where TG is a time group value.

8. A system as in claim 5, wherein information specifying at least the rotation direction is signalled to the mobile station in a downlink synchronization channel.

9. A system as in claim 5, wherein the rotation of the control channels occurs in odd timeslot numbers as 7, 5, 3, 1, 7, 5,..., etc.